Yakama Nation Fisheries

HONOR. PROTECT. RESTORE.

December 30, 2019

Chris Budai
U.S. Army Corps of Engineers
PO Box 2946
Portland, OR 97208-2946

RE: Yakama Nation Comments on the Bradford Island, Draft Quality Assurance Project Plan for Passive Sampling at the River Operable Unit

Dear Ms. Budai:

The Confederated Tribes and Bands of the Yakama Nation (Yakama Nation or YN) is submitting these comments on the December 2, 2019, Bradford Island, Draft Quality Assurance Project Plan (DQAPP) for Passive Sampling at the River Operable Unit. Overall, the DQAPP appropriately supports the passive sampler deployment plan. Much of the DQAPP is well established standard information; however, below are several concerns, questions, and comments:

DQO 2. It's not clear that this Data Quality Objective (DQO) adds much or can be justified by this proposed study. There are a number of reasons that the passive samplers may not accurately respond to releases from the sediments at some or at most of the locations, with the river currents and difficulty in obtaining close contact with the sediment surface both tending to reduce the measured releases. DQO 1 would also seem to inherently determine the areas that are limited sources, so DQO seems redundant. We agree that failure of the passive samplers to accumulate higher concentrations of PCBs should not be considered conclusive evidence that the area is not a source area. This is a secondary goal, has the potential for false negatives, and data from this study used for this goal should only be considered alongside multiple other lines of evidence.

Section 1.2.3. First, we question the need for, and the reasonableness of the proposed statistical criteria for determining a source area. As noted above, there are reasons why the passive samplers may absorb PCBs to a limited extent, either in specific samplers or overall. We feel the comparative spatial distribution of PCB totals and congener distributions should be the primary

approach to identifying like source areas. The proposed statistical criteria present an significant risk of false negatives.

Section 2.1.3. Second, the QAPP states that the data analyses will be based primarily on the sum of PCBs. The QAPP needs to describe how the sum will be determined, in particular how non-detected congeners will be handled. In addition, variations in congener distributions should also be considered.

Section 2.1.1. For completeness, the specific PCBs to be preloaded performance reference compounds (PRCs) on the sheets should be stated.

Section 2.1.2. The last line of this section is not clear. What is meant by "average temperature," and how will those be calculated? Further, Table 4, Line 7, indicates that the temperature data are to be compared to the PCB concentrations. We understood that the temperature data were to be examined on a point-by-point (hour-by-hour) basis, comparing the near-bottom (sampler) temperatures to the mid water-column data, with temperature differences indicating potential flux of groundwater. The use of average temperatures also risks masking diurnal groundwater inputs to the river. Temperature data should be evaluated on a point-by-point basis throughout the time series. In addition, evaluation of temperature data should discuss what is known about the groundwater temperature. Evaluations for groundwater upwelling can be inconclusive when there are insignificant differences between groundwater and surface water temperatures.

Section 2.1.3. *Deployment*. (Page 24). Could the last paragraph of this sub-section please be re-worded? The meaning is not easily discerned, particularly for the last line.

Section 2.1.3. *Retrieval*. (Page 24). This section indicates the locations of retrieval for each sampler will be measured. Please provide a little more detail about how those locations will be measure since it does not appear that the three-point boat control will be used during retrieval. In addition, how will differences between deployment and retrieval locations be handled during data interpretation?

Section 2.1.4. Please add a description of the clean space where the sampler sheets will be handled.

Table 5. (Note that this table, did not seem to be referred to in the text). Please state that the proposed detection limits are per congener (assuming that is true), and please include at least a short discussion regarding why the propose detection limits (1 ng/g) are appropriate. Although this study will be based primarily on the differences in concentrations among the samplers,

perhaps giving an approximate equivalent water concentration would demonstrate the sensitivity of the procedure.

Appendix C – Sampling Locations. Without site features indicated on this map (ex. outfalls, past 2007 removal action area, and subsequent elevated multi-media sample results), it is difficult to determine the adequacy of sample coverage on the westernmost extent of the northern shoreline. We understand the area to the west of the proposed samples (closest to the dam) has recently been determined not feasible for sampling. However, considering the past removal action and sampling activities further west, the reasons for this change in feasibility determination is unclear. The omission of this area presents a significant data gap. How does the Corps intend to address data gaps in this area?

We look forward to further discussion on how to achieve data gap needs. Please do not hesitate to contact me with questions. I can be reached at 509.985.3561 or shil@yakamafish-nsn.gov.

Sincerely,

Laura K. Shira

Laura K. Shira, P.E.
Yakama Nation Fisheries, Superfund Section